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teins, combinations (CZAR-  
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1937, 120, 621

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*l*-, preparation and blood pressure effect (HUNT and DU VIGNEAUD)

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**Alligator mississippiensis:** Blood  
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action (AUSTIN and HUMOL-  
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1937, 119, xxii

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1934, 105, xxxv

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1935, 109, lxi

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—, — phospholipid, relation (SINCLAIR)

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1935, 108, 471

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1938, 123, cxii

Vitamin B<sub>2</sub>, non-identity  
(ELVEHJEM and KOEHN)

1935, 108, 709

**Flaxseed**: Mucilage, aldobionic  
acid (NIEMANN and LINK)

1934, 104, 205

**Floridin**: Cholesterol activation,  
nature (YODER)

1936, 116, 71

**Fluorescein**: Dichloro-, cerebro-  
spinal fluid and blood serum  
chlorides, microdetermina-  
tion (SAIFER and KORN-  
BLUM)

1935-36, 112, 117

**Fluorides**: Feeding, bone and  
tooth effect (SMITH and  
LANTZ)

1933, 101, 677

**Fluorine**: Blood plasma phos-  
phatase, effect (SMITH and  
LANTZ)

1935-36, 112, 303

Bone phosphatase, effect  
(SMITH and LANTZ)

1935-36, 112, 303

Dentin, sound and carious  
teeth (ARMSTRONG)

1937, 119, v

Enamel, sound and carious  
teeth (ARMSTRONG)

1937, 119, v

-Fed cows, tissues, vitamin C  
distribution (PHILLIPS and  
STARE)

1934, 104, 351

**Fluorine**—*continued*:

Ingestion, milk effect (PHIL-  
LIPS, HART, and BOHSTEDT)

1934, 105, 123

Tooth phosphatase, effect  
(SMITH and LANTZ)

1935-36, 112, 303

Toxicosis, dietary organic con-  
stituents, effect (PHILLIPS  
and HART)

1935, 109, 657

**Fluorosis**: Chronic, body vitamin  
C, influence (PHILLIPS and  
CHANG)

1934, 105, 405

Reducing substances (PHIL-  
LIPS, STARE, and ELVEHJEM)

1934, 106, 41

Tissue respiration (PHILLIPS,  
STARE, and ELVEHJEM)

1934, 106, 41

**Folin, Otto**: Obituary, 1934, 107,  
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**Follicle**: Ovarian hormone (MAC-  
CORQUODALE, THAYER, and  
DOISY)

1935, 109, lviii

-Stimulating hormone, ante-  
rior pituitary (WALLEN-  
LAWRENCE)

1934, 105, xcvi

— —, urine, women, meno-  
pause (BLOCK, BRAND, HAR-  
RIS, and HINSIE)

1936, 114, xii

**Food**: Acid-base equilibrium de-  
termination (DAVIDSON and  
LECLERC)

1935, 108, 337

Amino acids (CSONKA)

1935, 109, xxv

1936, 114, xxiii

1937, 118, 147

Ammonolyzed, growth effect  
(ROBERTS and HORVITZ)

1938, 123, cii

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- p* - Bromophenylmercapturic acid synthesis, relation (STEKOL) 1937, 118, 155
- Calcium availability (FINCKE and SHERMAN) 1935, 110, 421
- , body calcium, relation (WHITCHER, BOOHER, and SHERMAN) 1936, 115, 679
- Hemoglobin regeneration, factors influencing (ROSE, VAHLTEICH, and MACLEOD) 1934, 104, 217
- Phosphorus, body calcium, relation (WHITCHER, BOOHER, and SHERMAN) 1936, 115, 679
- Trout, brook, calcium and phosphorus, effect (McCAY, TUNISON, CROWELL, and PAUL) 1936, 114, 259
- See also* Diet, Feedingstuff, Nutrition, Ration
- Formaldehyde:** Acidity, formol titration end-point and (LEVY) 1934, 105, 157
- Amino acids, reaction (TOMIYAMA) 1935, 111, 51
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- and imino acids, reactions (LEVY and SILBERMAN) 1937, 118, 723
- Ascorbic acid reaction (WEST and NEY) 1937, 119, cii
- Diphtheria toxin, action (PAPENHEIMER) 1938, 125, 201
- Formamide:** Amino acids and, compounds (McMEEKIN) 1936, 114, lxvi

- Formamidine:** Dithio-, cysteine oxidation, sulfenic acid formation (TOENNIES) 1937, 119, xcix
- Formic acid:** Isobutyryl-, ergot alkaloid, precursor (JACOBS and CRAIG) 1937-38, 122, 419
- Nucleic acid hydrolysis, source (STEVENS) 1937, 120, 751
- Formol titration:** Amino acids and peptides, determination (DUNN and LOSHAKOFF) 1936, 113, 359
- Basic amino acids, equilibria (LEVY) 1935, 109, 365
- End-point, formaldehyde acidity and (LEVY) 1934, 105, 157
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- Fowl:** Blood lipids (LORENZ, ENTENMAN, and CHAIKOFF) 1937-38, 122, 619
- , properties (MORGAN and CHICHESTER) 1935, 110, 285
- sugar, gizzardectomy effect (BURROWS, FRITZ, and TITUS) 1935, 110, 39
- Hemoglobin, spectrophotometric characteristics (KLEIN, HALL, and KING) 1934, 105, 753
- See also* Bird, Chick, Chicken, Creeper fowl, Hen
- Fox-squirrel:** Porphyria (TURNER) 1937, 118, 519
- Fructose:** Blood, determination (ROE) 1934, 107, 15
- Cerebrospinal fluid (HUBBARD and RUSSELL) 1937, 119, 647

**Fructose—continued:**

Destruction by oxygen, factors influencing (CLINTON and HUBBARD)

1937, 119, 467

Glucose tolerance, normal and depancreatized animals, effect (FLETCHER and WATERS)

1937, 119, xxxiii

Urine, determination (ROE)

1934, 107, 15

**Fruit:** Carotene, light effect (SMITH and MORGAN)

1933, 101, 43

Vitamin A, light effect (SMITH and MORGAN)

1933, 101, 43

**Fullers' earth:** Vitamin G concentration (LEPKOVSKY, POPPER, and EVANS)

1935, 108, 257

**Fumarate:** -Succinate-enzyme, system (STOTZ and HASTINGS)

1937, 118, 479

**Fumaric acid:** Determination (STOTZ)

1937, 118, 471

**Fungus:** Lipase, activity (KIRSH)

1935, 108, 421

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**Furanose:** Derivatives, pentoses, preparation (LEVENE and COMPTON)

1936, 116, 189

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**Galactonic acid:** *l*-, 3,4,5-trimethyl, preparation (TIPSON)

1938, 125, 341

**Galactose:** Absorption, intestine (CAJORI and KARR)

1935, 109, xiv

**Galactose—continued:**

Cataract-producing action, protein effect (MITCHELL and COOK)

1938, 123, lxxxvi

*d*-, dimethyl acetal (CAMPBELL and LINK)

1937-38, 122, 635

—, *d*-galacturonic acid synthesis from (NIEMANN and LINK)

1934, 104, 195

Glycogen formation and retention, effect (DEUEL, MAC-KAY, JEWEL, GULICK, and GRUNEWALD)

1933, 101, 301

Heptamethyl 6-glucosido-, methylation (LEVENE, MEYER, and KUNA)

1938, 125, 703

Hexamethyl 6-glucosido-, methylglycoside of, methyl ester of aldobionic acid hexamethyl methylglycoside, relation (LEVENE, MEYER, and KUNA)

1938, 125, 703

Ketolytic action, other sugars, comparison (BUTTS)

1934, 105, 87

*l*-, *l*-galacturonic acid synthesis from (NIEMANN and LINK)

1934, 104, 743

Lymph, thoracic (FAY and WHARTON)

1935, 109, 695

Respiratory quotient, normal and depancreatized dogs, ingestion effect (ROE, GILMAN, and COWGILL)

1934, 105, lxxii

Tolerance, determination, Folin sugar methods (LOONEY and JELLINEK)

1935, 109, lvii

**Galactose-1-phosphoric acid:**

Synthesis (COLOWICK)

1938, 124, 557

**Galactoside:** 2,3,4-Trimethyl  $\alpha$ -methyl-*d*-, 2,3,4-trimethyl $\alpha$ -methyl-*d*-galacturonide

methyl ester conversion

(LEVENE and KREIDER)

1937, 121, 155

**Galactosuria:** Carbohydrate metabolism (MASON)

1934, 105, lviii

**Galacturonate:** Aldehydo tetra-acetylmethyl-*d*-, synthesis

(CAMPBELL and LINK)

1937, 120, 471

**Galacturonic acid:** Ascorbic acid

precursor (JOHNSTIN and

POTTER) 1935, 110, 279

*d*-,  $\alpha$ -acetobromo-, methylester,  $\beta$ -methyl-*d*-galactur-

onide, conversion to (MOR-

ELL, BAUR, and LINK)

1935, 110, 719

—, —, —, synthesis (MOR-

ELL, BAUR, and LINK)

1935, 110, 719

—, *p*-bromophenylhydrazine

derivatives (NIEMANN,

SCHOEFFEL, and LINK)

1933, 101, 337

(SELL and LINK)

1938, 125, 235

—, diacetone, methyl ester,

catalytic reduction (LEVENE

and CHRISTMAN)

1937-38, 122, 661

—, esterification and acylation

(MORELL and LINK)

1935, 108, 763

—, *d*-galactose synthesis (NIE-

MANN and LINK)

1934, 104, 195

**Galacturonic acid—continued:***d*-, mercaptal, synthesis

(CAMPBELL and LINK)

1937, 120, 471

—, methyl ester, preparation

(SELL and LINK)

1938, 125, 229

—, phenylhydrazine deriva-

tives (NIEMANN, SCHOEFFEL,

and LINK)

1933, 101, 337

—, preparation (MORELL,

BAUR, and LINK)

1934, 105, 15

Determination, Bertrand's

method (KERTESZ)

1935, 108, 127

*dl*-, resolution (NIEMANN and

LINK)

1934, 106, 773

*l*-, *l*-galactose synthesis (NIE-

MANN and LINK)

1934, 104, 743

Poly-, methylglycosides, Ehr-

lich's *Pektolsäure* and *Pekto-**lactonsäure* (BAUR and

LINK)

1935, 109, 293

—, — from pectin (MORELL,

BAUR, and LINK)

1934, 105, 1

**Galacturonide:**  $\alpha$ -Methyl-*d*-, and

derivatives, ring structure

(LEVENE and KREIDER)

1937, 120, 597

—, hydrolysis, kinetics (MOR-

ELL and LINK)

1934, 104, 183

 $\beta$ -Methyl-*d*-,  $\alpha$ -acetobromo-*d*-

galacturonic acid methyl

ester, conversion from

(MORELL, BAUR, and LINK)

1935, 110, 719

Poly-, methyl ester, oxidation

and hydrolysis to levo-tar-

**Galacturonide**—*continued*:

taric acid (LEVENE and KREIDER)

1937, 120, 591

Triacetyl-*d*-, cholesterol, sitosterol, and ergosterol methyl esters, synthesis (SELL and LINK)

1938, 125, 235

2,3,4-Triacetyl  $\alpha$ -methyl-*d*-, methyl ester, catalytic reduction and deacetylation (LEVENE and CHRISTMAN)

1937-38, 122, 203

2,3,4-Trimethyl  $\alpha$ -methyl-*d*-, methyl ester, catalytic reduction (LEVENE, TIPSON, and KREIDER)

1937-38, 122, 199

— — — conversion to 2,3,4-trimethyl  $\alpha$ -methyl-*d*-galactoside (LEVENE and KREIDER)

1937, 121, 155

**Galac yeast:** Preparation (KIRBY and ATKIN)

1936, 116, 511

**Galleria mellonella:** *See* Bee-moth

**Gallstones:** Hog bile, lithocholic acid (SCHOENHEIMER and JOHNSTON)

1937, 120, 499

**Gallus domesticus:** *See* Fowl

**Gamabufagin:** Chemical constitution (JENSEN)

1937, 119, lii

**Gas:** Analysis, pipette, air-free reagents, storage (GUEST and HOLMES)

1935, 110, 781

—, respiration trials (KLEIBER)

1933, 101, 583

—, Van Slyke, vessels for solution storage (HOLMES)

1936, 113, 411

**Gas**—*continued*:

Blood analysis, Van Slyke (RAPPAFORT and KÖCK-MOLNAR)

1934, 104, 29

—, determination, blood collection (LOONEY and CHILDS)

1934, 104, 53

—, electrolyte and, equilibrium (VAN SLYKE and SENDROY)

1933, 102, 505

(VAN SLYKE, DILLON, and MARGARIA)

1934, 105, 571

(SENDROY, DILLON, and VAN SLYKE)

1934, 105, 597

—, exercise effect (LOONEY)

1938, 123, lxxvi

Ether-containing, analysis, Haldane apparatus (SNYDER)

1937-38, 122, 21

Solubility, determination (ORCUTT and SEEVERS)

1937, 117, 501

**Gastric:** *See* Stomach

**Gastrointestinal tract:** Hydrogen ion concentration determination, glass electrode (EASTMAN and MILLER)

1935, 110, 255

**Gelatin:** Arsanilic acid and (BOYD and HOOKER)

1934, 104, 329

Chemical constitution (BERGMANN)

1935, 110, 471

Microdetermination (SPENCER, MORGULIS, and WILDER)

1937, 120, 257

Salts and, activity coefficients and membrane equilibrium (JOSEPH)

1936, 116, 353

— —, interaction (JOSEPH)

1936, 114, lv

**Gelatin—continued:**

Structure (BERGMANN and NIEMANN)

1937, 118, 301

**Genital tract:** Male hormone, anterior pituitary-like hormone, and fat metabolism hormone, effect (HARROW and NAIMAN)

1934, 105, xxxv

**Gentiobiose:** Acetyl derivatives, uronic acid methyl esters, molecular rotations, relationship (GOEBEL and REEVES)

1938, 123, xlii

*p*-Aminophenol  $\beta$ -glycosides, synthesis (BABERS and GOEBEL)

1934, 105, 473

**Geronic acid:** Formation, carotene and dihydrocarotene ozonization (STRAIN)

1933, 102, 137

**Gestation:** Calcium requirement (COX and IMBODEN)

1934, 105, xviii

Magnesium requirement, calcium relation (TUFTS and GREENBERG)

1937-38, 122, 715

Phosphorus requirement (COX and IMBODEN)

1934, 105, xviii

Pituitary, anterior, extract, growth hormone, effect (WATTS)

1935, 109, xcv

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**Gibberella saubinetii:** Carbon metabolism on glucose (HESSLER and GORTNER)

1937, 119, 193

**Gingiva:** Lipids (HODGE)

1933, 101, 55

**Girls:** Adolescent, mineral metabolism (WANG, KAUCHER, and WING)

1935, 109, xcv

Basal metabolism, preformed and total creatinine nitrogen (WANG)

1937, 119, cii

**Gitogenin:** (JACOBS and SIMPSON)

1934, 105, 501

**Gizzard:** Anti-erosion factor, chick, chondroitin effect (BIRD and OLESON)

1938, 123, xi

Factor, chick, distribution and properties (BIRD, ELVEHJEM, and HART)

1936, 114, x

**Gliadin:** Osmotic pressure, molecular weight, and stability (BURK)

1938, 124, 49

**Globin:** Amphoteric properties (COHN, SALTER, and FERRY)

1938, 123, xxiv

-Ferrihemate conjugation, mechanism (WILLIAMS and MORRISON)

1938, 123, cxxix

Hemoglobin relation (WILLIAMS and MORRISON)

1937, 119, cv

Iodized, amphoteric properties (COHN, SALTER, and FERRY)

1938, 123, xxiv

**Globulin(s):** Antipneumococcus serum (GREEN)

1938, 123, xliv

Biological fluids, determination, precipitin method (GOETTSCH and KENDALL)

1935, 109, 221

Blood serum and plasma (CAMPBELL and HANNA)

1937, 119, 15



**Globulins—continued:**

Blood serum, determination,  
angle centrifuge (PRICE,  
ROBINSON, and HOGDEN)

1938, 123, xcvi

— —, —, errors (ROBINSON,  
PRICE, and HOGDEN)

1937, 119, lxxxiii

1937, 120, 481

— —, osmotic pressure, molec-  
ular weight, and stability  
(BURK) 1937, 121, 373

— —, synthetic solution, spe-  
cific gravity (NUGENT and  
TOWLE) 1934, 104, 395

Crystalline, milk, from albumin  
fraction (PALMER)

1934, 104, 359

Jack bean, crystalline, from  
canavalin (SUMNER and  
HOWELL) 1936, 113, 607

Placenta, immune (GREEN and  
McKHANN)

1935, 109, xxxvii

Pseudo-, carbohydrate, nature  
(COGHILL and CREIGHTON)

1938, 123, xxiii

**Glomerulus:** Inulin excretion,  
frog and *Necturus* (HEN-  
DRIX, WESTFALL, and RICH-  
ARDS)

1936, 116, 735

Urine (RICHARDS, BORDLEY,  
and WALKER)

1933, 101, 179

—, chloride, frog and *Necturus*  
(WESTFALL, FINDLEY, and  
RICHARDS)

1934, 107, 661

—, creatinine, frog (BORDLEY,  
HENDRIX, and RICHARDS)

1933, 101, 255

—, hydrogen ion concentration  
determination, microquinh-

**Glomerulus—continued:**

drone electrode, *Necturus*  
(PIERCE and MONTGOMERY)

1935, 110, 763

Urine, inorganic phosphate,  
frog and *Necturus* (WALKER)

1933, 101, 239

—, reaction, frog and *Necturus*  
(MONTGOMERY)

1935, 110, 749

—, reducing substances, frog  
and *Necturus* (WALKER and  
REISINGER)

1933, 101, 223

—, uric acid, snake and frog  
(BORDLEY and RICHARDS)

1933, 101, 193

**Glucoreductone:** 2,6-Dichloro-  
phenol indophenol standardi-  
zation, ascorbic acid deter-  
mination (KERTESZ)

1934, 104, 483

**Glucosamine:** *d*-, oxidation  
(HERBST) 1937, 119, 85

Isolation (CHARGAFF and Bo-  
VARNICK) 1937, 118, 421

**Glucosaminic acid:** *d*-, oxidation  
(HERBST) 1937, 119, 85

Hydrogen iodide, reduction  
(LEVENE and CHRISTMAN)

1938, 123, 83

**Glucose:** Absorption, intestine  
(CAJORI and KARR)

1935, 109, xiv

—, —, rate (MACKAY and  
BERGMAN) 1933, 101, 453  
(TRIMBLE and MADDOCK)

1934, 107, 133

—, normal and adrenalectom-  
ized rats, sexual variation  
(DEUEL, HALLMAN, MUR-  
RAY, and SAMUELS)

1937, 119, 607

**Glucose—continued:**

- Acetoacetic ester and, compounds (MOORE, ERLANGER, and WEST) 1936, 113, 43
- Acetyl derivatives, uronic acid methyl esters, molecular rotations, relationship (GOEBEL and REEVES) 1938, 123, xlii
- $\beta$ -, preparation (WHISTLER and BUCHANAN) 1938, 125, 557
- Blood changes, swine, ingestion effect (EVELETH) 1934, 104, 559
- 1935, 111, 753
- serum potassium, injection effect (FLOCK, BOLLMAN, MANN, and KENDALL) 1938, 125, 57
- water and electrolyte distribution, intraperitoneal injection effect (ROBINSON and HEGNAUER) 1936, 116, 779
- Carbon metabolism, *Gibberella saubinetii* effect (HESSLER and GORTNER) 1937, 119, 193
- Chloride relationship, blood, insulin effect (CHAIKELIS) 1934, 105, 767
- Containing antigens, artificial, immunological properties (GOEBEL and GOODNER) 1936, 114, xl
- d*-, absorption, stomach (MADDOCK, TRIMBLE, and CAREY) 1933, 103, 285
- , metabolism (DEUEL, HALLMAN, MURRAY, and HILLIARD) 1938, 125, 79

**Glucose—continued:**

- d*-, sugar acids, preparation from (HART, SHEPPARD, and EVERETT) 1938, 123, lii
- Destruction by oxygen, factors influencing (CLINTON and HUBBARD) 1937, 119, 467
- Dissimilation, mechanism, propionic acid bacteria (WOOD and WERKMAN) 1934, 105, 63
- Duodenum entry rate (KARR, AUSTIN, ABBOTT, and HOFFMAN) 1937, 119, lv
- Excretion, diabetes, exercise effect (CHAMBERS, HIMWICH, and KENNARD) 1935, 108, 217
- Fate, stomach (HOFFMAN, ABBOTT, KARR, and MILLER) 1938, 123, lvii
- Fatty acid formation by *Aspergillus niger* (SCHMIDT) 1935, 110, 511
- Glycogen formation and retention, effect (DEUEL, MAC-KAY, JEWEL, GULICK, and GRUNEWALD) 1933, 101, 301
- Glycogenic and ketolytic action, comparison (SHA-PIRO) 1935, 108, 373
- Ketolytic action, other sugars, comparison (BUTTS) 1934, 105, 87
- Liver, hexoses and trioses, relation (CORI and SHINE) 1936, 114, xxi
- Metabolism, trypanosomes (REINER, SMYTHE, and PEDLOW) 1936, 113, 75

**Glucose—continued:**

Microdetermination, maltose presence (SOMOGYI)

1937, 119, 741

Oxidation, air, iron pyrophosphate (GOERNER)

1934, 105, 705

Reducing action, physicochemical study (WOOD)

1934, 105, cii

1935, 110, 219

Skin, determination, Hagedorn-Jensen method (PILLSBURY and KULCHAR)

1934, 106, 351

Stomach emptying rate, administration effect (PIERCE, HAEGE, and FROESCHLE)

1937, 119, lxxviii

Tolerance, normal and depancreatized animals, fructose effect (FLETCHER and WATERS)

1937, 119, xxxiii

—, oral and intravenous (KOEHLER and HILL)

1938, 123, lxx

—, vitamin C, relation (SIGAL and KING)

1936, 116, 489

Urine, determination, photoelectric (HOFFMAN)

1937, 120, 51

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**Glucosemonophosphate:** Calcium salt, yeast extract, isolation (SMYTHE)

1937, 117, 135

**Glucose-4-phosphate:** (RAYMOND)

1936, 113, 375

**Glucose-1-phosphoric acid:** Isolation and synthesis (CORI, CORI, and COLOWICK)

1937, 119, xix

**Glucose-1-phosphoric acid—continued:**

(CORI, COLOWICK, and CORI)

1937, 121, 465

Tissue, mammalian, extracts, formation (CORI, COLOWICK, and CORI)

1938, 123, 375

Yeast extract, formation (CORI, COLOWICK, and CORI)

1938, 123, 375

**Glucose-1-phosphoric ester:** Glucose-6-phosphoric ester conversion, enzyme, tissue extracts (CORI, COLOWICK, and CORI)

1938, 124, 543

**Glucose-6-phosphoric ester:** Glucose-1-phosphoric ester conversion to, enzyme, tissue extracts (CORI, COLOWICK, and CORI)

1938, 124, 543

**Glucosidase:**  $\alpha$ -, specificity (TAUBER and KLEINER)

1934, 105, xci

**Glucurone:** Diacetylchloro-, synthesis (GOEBEL and BABERS)

1933, 101, 173

**Glucuronic acid:** Benzoyl-, chemical constitution (GOEBEL)

1937-38, 122, 649

Borneol-, glucuronic acid preparation from (SWARTZ and MILLER)

1933, 103, 651

$\alpha$ -Bromotriacetyl-, methyl ester, preparation (GOEBEL and BABERS)

1935, 111, 347

$\alpha$ -Chlorotriacetyl-, methyl ester, preparation (GOEBEL and BABERS)

1935, 111, 347

1-Chlorotriacetyl-, methyl ester, synthesis (GOEBEL and BABERS)

1934, 106, 63

**Glucuronic acid**—*continued*:

-Containing antigens, artificial, immunological properties (GOEBEL and GOODNER)

1936, 114, xl

Derivatives (GOEBEL and BABERS)

1933, 101, 173

1935, 110, 707

(HOTCHKISS and GOEBEL)

1936, 115, 285

(GOEBEL and REEVES)

1938, 124, 207

Determination, Bertrand's method (KERTESZ)

1935, 108, 127

*l*-, synthesis (NIEMANN and LINK)

1934, 106, 773

Preparation, borneolglucuronic acid (SWARTZ and MILLER)

1933, 103, 651

Source (AMBROSE and SHERWIN)

1934, 105, iv

$\alpha$ -Tetraacetyl- and  $\beta$ -tetraacetyl-, methyl ester, synthesis (GOEBEL and BABERS)

1934, 106, 63

**Glucuronidase:**  $\beta$ - (FISHMAN)

1938, 123, xxxvi

**Glucuronide(s):**  $\beta$ -, synthesis

(GOEBEL and BABERS)

1935, 111, 347

Synthesis (GOEBEL and BABERS)

1935, 110, 707

**Glutamic acid(s):** Calorigenic

action (LUCK and LEWIS)

1934, 105, lv

*d*-, fate (BUTTS, BLUNDEN, and DUNN)

1937, 119, 247

(BUTTS, DUNN, and BLUNDEN)

1937, 119, xv

*dl*-, crystalline, anhydrous and monohydrated (DUNN and STODDARD)

1937, 121, 521

**Glutamic acid(s)**—*continued*:

*dl*-, fate (BUTTS, BLUNDEN, and DUNN)

1937, 119, 247

(BUTTS, DUNN, and BLUNDEN)

1937, 119, xv

Lysyl-, derivatives, synthesis (GREENSTEIN)

1935, 109, 541

Peptide, physical constants (GREENSTEIN)

1933, 101, 603

*dl*-Pyro-, fate (BUTTS, BLUNDEN, and DUNN)

1937, 119, 247

-Pyrrolidonecarboxylic acid system (WILSON and CANAN)

1937, 119, 309

**Glutamine:** Preparation (VICKERY, PUCHER, and CLARK)

1935, 109, 39

Tobacco leaves (VICKERY and PUCHER)

1936, 113, 157

**Glutamylcysteinylglycine:**  $\alpha$ -, synthesis (DU VIGNEAUD, LORING, and MILLER)

1937, 118, 391

**Glutathione:** Benzylcysteinylglycine isolation from (LORING and DU VIGNEAUD)

1935, 111, 385

Blood, anemia, nutritional (SCHULTZE and ELVEHJEM)

1936, 116, 711

—, schizophrenia (LOONEY and CHILDS)

1934, 105, liii

Bromobenzene-containing diets, growth effect (STOKOL)

1938, 123, cxvi

Catalase inactivation, effect (MARKS)

1936, 115, 299

**Glutathione—continued:**

- Cystinyldiglycine isolation  
from (LORING and DU VIGNEAUD) 1935, 111, 385
- Disappearance, biological  
fluids (OBERST) 1935, 111, 9
- Glycolysis, effect (MORGULIS)  
1935, 109, lxviii  
1938, 123, 1
- Iso-, synthesis (DU VIGNEAUD,  
LORING, and MILLER) 1937, 118, 391
- Kidney enzyme, hydrolysis  
(SCHROEDER and WOODWARD) 1937, 120, 209
- Mercapturic acid synthesis, relation (STEKOL) 1937-38, 122, 333
- Metabolism, cystinuria  
(BRAND, CAHILL, and HARRIS) 1935, 109, 69
- Microdetermination, glyoxalase in (WOODWARD) 1935, 109, 1
- Naphthalene-containing diets,  
growth effect (STEKOL) 1938, 123, cxvi
- Oxidation, copper and hemo-  
chromogens as catalysts  
(LYMAN and BARRON) 1937, 121, 275
- Phospho-18-tungstic acid, reaction (SHINOHARA and PADIS) 1935-36, 112, 697
- Reduced and oxidized, blood  
oxygen capacity and content, relation (OBERST and WOODS) 1935, 111, 1
- Synthesis (DU VIGNEAUD and MILLER) 1936, 116, 469

**Glutathione—continued:**

- Utilization, cystine-deficient  
diet (DYER and DU VIGNEAUD) 1936, 115, 543
- X-ray, effect (KINSEY) 1935, 110, 551
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*dl*-Amino-N-methyltryptophane effect (GORDON)

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*l*-Histidine, effect (Cox and  
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3( $\alpha$ )-, urine, adrenal tumor,  
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hydroxy-*n*-caproic acid, con-  
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**Methylbenzylpropionic acid:** Methylbenzylacetic acid, configurational relationship (LEVENE and MARKER)

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**Methylcholanthrene:** Isomers, carcinogenesis effect (SHEAR)

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1937, 119, 689

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**Methylene blue:** Blood cell, red, oxidation, cyanide effect (WENDEL)

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**Methylglyoxal:** Thiol acids, combination (SCHUBERT)

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**Methyl hypobromite:** Unsaturated acids, effect (WEST, KRUMMEL, and CARTER)

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**Methyloctylacetic acid:** Derivatives,

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(AULT and BROWN)

1934, 107, 607

*Lactobacillus acidophilus*, frac-  
tion (CROWDER and ANDER-  
SON) 1934, 104, 487

Polydiamino-, hydrolysis, poly-  
diaminophosphatase, cere-  
brosidase relation (THANN-  
HAUSER and REICHEL)

1936, 113, 311

—, reineckate, spleen  
(THANNHAUSER and SETZ)

1936, 116, 527

Protamine salts, lipoproteins,  
relation (CHARGAFF)

1938, 125, 661

Tubercle bacillus, human  
(ANDERSON, LOTHROP, and  
CREIGHTON)

1938, 125, 299

**Phospho-d-arabinose:** 5-, syn-  
thesis (LEVENE and CHRIST-  
MAN) 1938, 123, 607

**Phosphocreatine:** Brain (KERR)  
1935, 110, 625

—, narcotics and convulsant  
drugs, effect (KERR and  
ANTAKI) 1937-38, 122, 49

**Phosphoglycerate:** Blood (WAR-  
WEG and STEARNS)

1936, 115, 567

**Phospholipid(s):** Blood, adrenal-ectomy effect (YEAKEL and BLANCHARD)

1938, 123, 31

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1936, 115, 211

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1937, 118, 701

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1935, 109, 449

Cephalin determination by choline estimation (WILLIAMS, ERICKSON, AVRIN, BERNSTEIN, and MACY)

1938, 123, 111

Fatty acids, muscle (SNIDER)

1936, 116, 503

— —, saturated and unsaturated (SINCLAIR)

1935, 111, 261

— —, tumor, unsaturation degree (HAVEN)

1935, 109, xlii

Formation and destruction, fasting, radioactive phosphorus as indicator (PERLMAN, RUBEN, and CHAIKOFF)

1937-38, 122, 169

Intestinal mucosa, fat absorption (SINCLAIR)

1937, 119, xc

— —, turnover (SINCLAIR and SMITH)

1937, 121, 361

Liver, fat metabolism relation (SINCLAIR)

1935, 111, 515

Metabolic and non-metabolic (SINCLAIR)

1936, 114, xciv

**Phospholipid(s)—continued:**

Metabolism, radioactive phosphorus as indicator (ENTENMAN, RUBEN, PERLMAN, LORENZ, and CHAIKOFF)

1938, 124, 795

—, — — — indicator, various organs (FRIES, RUBEN, PERLMAN, and CHAIKOFF)

1938, 123, 587

—, stomach and intestine, rôle, ingested fat effect (FRIES, RUBEN, PERLMAN, and CHAIKOFF)

1938, 123, 587

—, tumors (HAVEN)

1936, 114, xlvii

1937, 118, 111

Muscle activity, effect (BLOOR and SNIDER)

1934, 107, 459

(BLOOR) 1937, 119, 451

Phosphorus, blood plasma, hepatectomy, partial, and bile duct ligation, effect (CHANUTIN and LUDEWIG)

1936, 115, 1

—, — —, normal and nephrectomized rats (LUDEWIG)

1938, 123, lxxviii

—, radioactive, phosphorus distribution (HAVEN, BALE, and LEFEVRE)

1938, 123, lii

Respiratory quotient, effect (REISER and HANES)

1938, 123, ci

Tissue, elaidic acid, relation (SINCLAIR)

1935, 109, lxxxv

1935, 111, 515

—, fatty acids, unsaturated, selection and retention (SINCLAIR)

1935, 111, 275

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1937, 117, 135

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1934, 105, xlvii

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**Phosphorus:** Acid-soluble fractions, blood, potassium relation (KERR)

1937, 117, 227

— organic, blood, hydrolysis, acid and enzyme (WARWEG and STEARNS)

1936, 115, 567

Blood, partition (STEARNS and WARWEG)

1933, 102, 749

—, —, chicken (HELLER, PAUL, and THOMPSON)

1934, 106, 357

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1933, 102, 749

— —, —, laying hens (ROEPKE and HUGHES)

1935, 108, 79

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1937-38, 122, 53

Calcium and, intake levels, body calcium and growth, effect (TOEPFER and SHERMAN)

1936, 115, 685

Chick (ELVEHJEM and KLINE)

1933, 103, 733

-Deficient diet, basal metabolism (GOSS and KLEIBER)

1937, 119, xxxviii

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Dietary, hematopoiesis effect (DAY, STEIN, and MCCOLLUM) 1938, 123, xxviii

Food, body calcium, relation (WHITCHER, BOOHER, and SHERMAN)

1936, 115, 679

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1934, 105, xviii

Inorganic, blood cell, red, permeability (HALPERN)

1936, 114, 747

—, — plasma, dairy cattle (HAAG and JONES)

1935, 110, 439

—, — serum, age and nutrition, effect (PEARSON)

1934, 106, 1

—, —, —, forms (GREENBERG and LARSON)

1935, 109, 105

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1935, 109, 123

—, —, —, hypercalcemia (BENJAMIN and HESS)

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—, —, —, new born puppies (BODANSKY)

1934, 104, 717

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1934, 105, xviii

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-Low diets, vitamin D<sub>2</sub> effect (SCHNEIDER and STEENBOCK) 1938, 123, cv

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1934, 105, lx

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Metabolism, nerve, invertebrate  
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1935-36, 112, 379

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1938, 123, lxxix

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cytes (KERR and DAOUD)

1935, 109, 301

—, blood hydrolysis, phos-  
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TAKI) 1937, 121, 531

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bile duct ligation, effect  
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1936, 115, 1

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1938, 123, 587

Retention, carbon dioxide  
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Trout, brook, factors affecting  
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WELL, and PAUL)

1936, 114, 259

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1934, 105, xciii

1935, 111, 61

*l*-Cystine precipitation (TOEN-  
NIES and ELLIOTT)

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1935, 111, 61

*m*-Cystine precipitation  
(TOENNIES and ELLIOTT)

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**Phospho-18-tungstic acid:** A-,  
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molecular ratio (SHINOHARA)

1937, 120, 743

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HARA and PADIS)

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1935, 110, 263

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1935-36, 112, 709

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1935, 111, 421

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1937, 119, 549

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1936, 114, 467

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1937, 119, 543

— —, human (BALL)

1934, 106, 515

— —, —, absorption spectrum curve, ultraviolet (CROWE)

1936, 115, 479

— —, —, chemical constitution (ANDERSON and NEWMAN)

1933, 103, 197

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Tubercle bacillus, determination, synthesis (ANDERSON and NEWMAN)

1933, 103, 405

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**Physostigmine:** Blood sugar, adrenals, demedullated and, effect (HARNED and COLE)

1938, 123, li

**Picoline:**  $\alpha$ -, dissociation constant, basic (BARRON)

1937, 121, 313

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**Pigment(s):** Beet root, red, determination (PUCHER, CURTIS, and VICKERY)

1938, 123, 71

— —, —, preparation (PUCHER, CURTIS, and VICKERY)

1938, 123, 61

Blood, salt-low ration, realimentation effect (ORTEN and SMITH)

1934, 105, lxvi

Carotenoid, absorption spectra, liquid air temperatures (HILBERT and JANSEN)

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—, cow-pea leaves, absorption spectra, liquid air temperatures (HILBERT and JANSEN)

1934, 106, 97

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1935, 110, 249
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- Pimiento, egg yolk color, effect  
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1937-38, 122, 655
- , Perfection (BROWN)  
1935, 110, 91
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- —, —, chemical constitu-  
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SALTZMAN)  
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LER) 1937, 119, 121
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- Pine:** Slash. *See* Slash-pine
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- Piperazines:** 2,5-Diketo-, hy-  
drolysis (SRINIVASAN and  
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- Pipette:** Gasometric analysis,  
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1935, 110, 781
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- , carbohydrate metabolism  
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- , follicle-stimulating and  
luteinizing hormone (WAL-  
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1934, 105, xcvii
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metabolism, effect (GAEBLER  
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- , inhibitory substances, pro-  
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1938, 123, v

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1933, 102, 573

—, preparations, electrophoresis (DU VIGNEAUD, IRVING, DYER, and SEALOCK)

1938, 123, 45

—, press-juice, pressor and oxytocic hormones, electrophoresis (IRVING and DU VIGNEAUD)

1938, 123, 485

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1933, 102, 573

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1936, 114, xlii

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1937, 118, 123

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1936, 113, 197

1936, 114, 185

Green, amides, metabolism (VICKERY, PUCHER, WAKEMAN, and LEAVENWORTH)

1937, 119, 369

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1938, 124, 151

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1938, 125, 65

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- Polydiaminophosphatide:** Hydrolysis, polydiaminophosphatase, cerebrosidase relation (THANNHAUSER and REICHEL) 1936, 113, 311
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**Propane:** 1-Amino-2-hydroxy-, synthesis, new (LEVENE) 1936, 113, 153

Cyclo-, blood, determination (ORCUTT and WATERS) 1937, 117, 509

**Propionaldehyde:** Reduction, *Clostridium acetobutylicum* (BLANCHARD and MACDONALD) 1935, 110, 145

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Disubstituted, with ethyl group, configurational relationship (LEVENE, ROTHEN, and MEYER)

1936, 115, 401

Glycogen formation, ingestion effect (ECKSTEIN)

1933, 102, 591

Methylbenzyl-, methylbenzyl-acetic acid, configurational relationship (LEVENE and MARKER)

1935, 110, 299

 $\alpha$ -Oximino- $\beta$ -3-indole-, tryptophane-deficient diet supplement, growth effect (BAUGUESS and BERG)

1934, 104, 675

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1935, 110, 145

**Propyl acids**: Iso-, normal series, configurational relationship (LEVENE and MARKER)

1935, 111, 299

**Prostigmine**: Muscle choline esterase activity, effect (STADIE and JONES)

1938, 123, cxiv

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1938, 123, cxiv

**Protaminase**: Proteinase, influence, determination (WEIL)

1934, 105, 291

**Protamine(s)**: Blood coagulation, effect (CHARGAFF and OLSON)

1937-38, 122, 153 (CHARGAFF)

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Insulin action, effect (SCOTT and FISHER)

1936, 114, lxxxviii

Salts, phosphatides, lipoproteins, relation (CHARGAFF)

1938, 125, 661

**Protease**: Lipase action, effect (FALK)

1933, 103, 363

Pepsin, trypsin, and salivary amylase, inactivation (TAUBER and KLEINER)

1934, 105, 411

**Protein(s)**: Abscess nitrogen metabolism, anemic and non-anemic dogs, relation (DAFT, ROBSCHT-ROBBINS, and WHIPPLE)

1937, 121, 45

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Acids and bases, gaseous, combination (CZARNETZKY and SCHMIDT)

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1934, 106, 457

— groups, free, allocation (GURIN and CLARKE)

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1937, 121, 71

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1938, 124, 585

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- lation (SEIBERT and MUN-  
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—, diet of hen, effect (CALVERY and TITUS)

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1937, 120, 1

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— —, anemia, metabolism effect (DAFT, ROBSCHT-ROBBINS, and WHIPPLE)

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— —, urea-splitting enzyme, relation (MARTIN)

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1934, 107, 57

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1935, 111, 643

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1936, 115, 695

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1938, 125, 661

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—, — — — preparation, effect (GAEBLER and PRICE)

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